

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions and listings of claims in the application:

1. (Currently Amended) A method for transferring nucleic acids of interest into ~~competent~~ host cells~~[[,]]~~ comprising ~~the steps of:~~

(a) suspending the ~~mixing competent~~ host cells ~~suspended~~ in a substantially non-ionic solution comprising at least one sugar or sugar derivative ~~with the nucleic acids of interest;~~

(b) freezing and thawing the host cells either before or after the suspending;

(c) mixing the host cells with the nucleic acids of interest; and

~~(b)~~ (d) subjecting the host cells to an electrical treatment, thereby permitting the transfer of the nucleic acids of interest into the bacterial host cells.

2. (Original) The method of claim 1, wherein the non-ionic solution further comprises glycerol or dimethyl sulfoxide.

3. (Original) The method of claim 1, wherein the host cells are gram-negative bacterial cells.

4. (Original) The method of claim 3, wherein the gram-negative bacterial cells are *E. coli*.

5. (Currently Amended) The method of claim 1, further comprising ~~the step of~~ culturing the transformed cells in a selected media capable of promoting their growth.

6. (Currently Amended) The method according to claim 1, wherein the concentration of the sugar or sugar derivative is in the range of about 0.1% to about 5%.

7. (Currently Amended) The method according to claim 1, wherein the sugar or sugar derivative is sorbitol in a concentration range of about 2.0% to about 2.5%.

8. (Original) The method according to claim 1, wherein the sugar or sugar derivative is an aldose.

9. (Currently Amended) The method according to claim 8, wherein the aldose is selected from ~~the group consisting of~~ monosaccharides, disaccharides, trisaccharides, and oligosaccharides.

10. (Original) The method according to claim 1, wherein the sugar or sugar derivative is an aldose alcohol.

11. (Currently Amended) The method according to claim 10, wherein the aldose alcohol is selected from ~~the group consisting of~~ erythritol, sorbitol, and mannitol.

12. (Original) The method according to claim 1, wherein the sugar or sugar derivative is a ketose.

13. (Currently Amended) The method of according to claim 12, wherein the ketose is selected from ~~the group consisting of~~ dihydroxyacetone, erythrulose, ribulose, xylulose, psicose, fructose, sorbose, and tagatose.

14. (Original) The method according to claim 1, wherein the sugar or sugar derivative is an aminosugar.

15. (Currently Amended) The method according to claim 14, wherein the aminosugar is ~~selected from the group consisting~~ at least one of aminosugar selected from glucosamine, galactosamine, N-acetylglucosamine, N-acetylgalactosamine, muramic acid, N-acetyl muramic acid, and sialic acid.

16. (Original) The method according to claim 1, wherein the sugar or sugar derivative is a glycoside.

17. (Currently Amended) The method according to claim 16, wherein the glycoside is selected from ~~the group consisting of~~ glucopyranose and methyl-glucopyranose.

18. (Currently Amended) The method according to claim 1, wherein the sugar or sugar derivative thereof is a lactone.

19. (Original) The method according to claim 18, wherein the lactone is gluconolactone.

20. (Currently Amended) The method according to claim 1, wherein the non-ionic solution comprises a mixture of ~~sugars and~~ sugars, sugar derivatives, or both sugars and sugar derivatives.

21. (Currently Amended) ~~An electroporation kit~~ A kit comprising transformation competent cells suspended in a substantially non-ionic solution comprising (a) at least one sugar or sugar derivative, and (b) a cryopreservative selected from glycerol and dimethyl sulfoxide.

22. (Original) The kit according to claim 21, wherein the transformation competent cells are gram-negative bacterial cells.

23. (Currently Amended) The kit according to claim ~~[[21]]~~ 22, wherein the gram-negative bacterial cells are *E. coli*.

24. (Currently Amended) The kit according to claim 21, wherein the concentration of the sugar or sugar derivative thereof is in the range of about 0.1% to about 5%.

25. (Currently Amended) The kit according to claim ~~[[1]]~~ 21, wherein the sugar or sugar derivative is sorbitol in a concentration range of about 2.0% to about 2.5%.

26. (Original) The kit according to claim 21, wherein the sugar or sugar derivative is an aldose.

27. (Currently Amended) The kit according to claim 26, wherein the aldose is selected from ~~the group consisting of~~ monosaccharides, disaccharides, trisaccharides, and oligosaccharides.

28. (Original) The kit according to claim 21, wherein the sugar or sugar derivative is an aldose alcohol.

29. (Currently Amended) The kit according to claim 28, wherein the aldose alcohol is selected from ~~the group consisting of~~ erythritol, sorbitol, and mannitol.

30. (Original) The kit according to claim 21, wherein the sugar or sugar derivative is a ketose.

31. (Currently Amended) The kit according to claim 30, wherein the ketose is selected from ~~the group consisting of~~ dihydroxyacetone, erythrulose, ribulose, xylulose, psicose, fructose, sorbose, and tagatose.

32. (Original) The kit according to claim 21, wherein the sugar or sugar derivative is an aminosugar.

33. (Currently Amended) The kit according to claim 32, wherein the aminosugar is ~~selected from the group consisting of~~ at least one of aminosugar selected from glucosamine, galactosamine, N-acetylglucosamine, N-acetylgalactosamine, muramic acid, N-acetyl muramic acid, and sialic acid.

34. (Original) The kit according to claim 21, wherein the sugar or sugar derivative is a glycoside.

35. (Currently Amended) The kit according to claim 34, wherein the glycoside is selected from ~~the group consisting of~~ glucopyranose and methyl-glucopyranose.

36. (Currently Amended) The kit according to claim 21, wherein the sugar or sugar derivative ~~thereof~~ is a lactone.

37. (Original) The kit according to claim 36, wherein the lactone is gluconolactone.

38. (Currently Amended) The kit according to claim 21, wherein the non-ionic solution comprises a mixture of ~~sugars and~~ sugars, sugar derivatives, or both sugars and sugar derivatives.

39. (New) The method of claim 2, wherein the non-ionic solution comprises glycerol at a concentration of 10% to 15%.

40. (New) The kit of claim 21, wherein the cryopreservative comprises glycerol at a concentration of 10% to 15%.